

- ① Color corresponding sides & angles
- ② Label \cong sides (S) & angles (A) in ONE triangle
- ③ Write congruency statement.

Name: _____ TP: _____

HW#52: SSS, **SAS**, ASA

Form A

Geometry

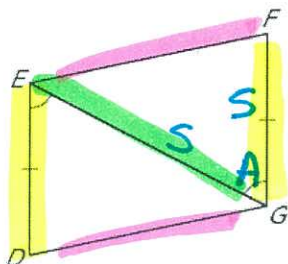
Due Date: Tuesday, December 17th, 2013

COMPLETE ALL STEPS

Failure to show work on all problems or use complete sentences will result in a LaSalle.

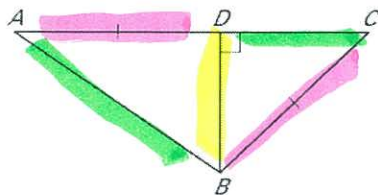
For #1- 9, determine if the two triangles are congruent. If so, write a congruency statement and identify what postulate is needed to prove the congruency. If not, write "not congruent" and explain why.

1)



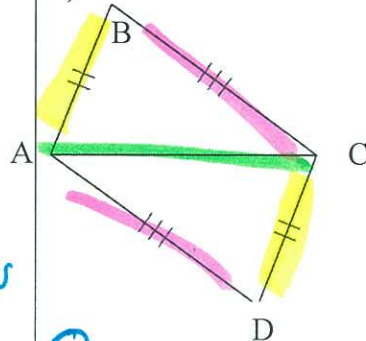
- ① Sides & \angle s are corresponding.
- ② see above
- ③ $\triangle EFG \cong \triangle GFE$
Make sure you write the triangles in corresponding order.

2)



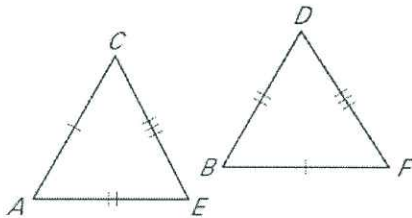
- ① The pink & green sides do NOT correspond.
- The triangles are not \cong because the sides & angles are not \cong .

3)



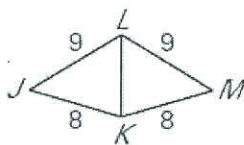
- ①
- ②
- ③

4)



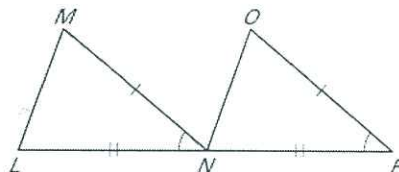
- ①
- ②
- ③

5)



- ①
- ②
- ③

6)

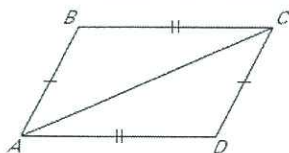


- ①
- ②
- ③

7) Complete the proof.

GIVEN: $\overline{AB} \cong \overline{CD}$, $\overline{BC} \cong \overline{AD}$

PROVE: $\triangle ABC \cong \triangle CDA$



Statement Reason

STAY READY.

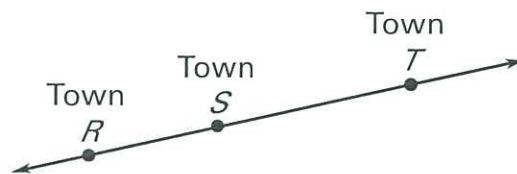
You should approach each problem as an exploration. Problem-solving requires persistence as much as it requires ingenuity. When you get stuck, or solve a problem incorrectly, back up and start over. Keep in mind that you're probably not the only one who is stuck, and that may even include your teacher. **If you have taken the time to think about a problem, you should bring to class a written record of your efforts, not just a blank space in your notebook.** The methods that you use to solve a problem, the corrections that you make in your approach, the means by which you test the validity of your solutions, and your ability to communicate ideas are just as important as getting the correct answer.

Solve all of the problems in your **graph paper notebook neatly labeled!** If you are stuck and cannot answer a question, write at least three complete sentences about the problem and what you do know. Use at least one of the sentence starters below:

- Even though I am stuck, I do know...and I think I should...because...
- I am stuck because I do not know what _____ means. I think it means...so I tried...
- I got this answer but I think it is wrong because...

Remember that you can always use old notes, a dictionary, math textbook, and/or look up topics online!

- 1) Darius is a salesperson who needs to visit towns R, S, and T. On the map below, $RS = 21.4$ miles and $ST = 4.2(RS)$. Assume that Darius travels along the road shown. Find the distance Darius travels if he starts at town R, visits towns S and T, and then returns to town R.



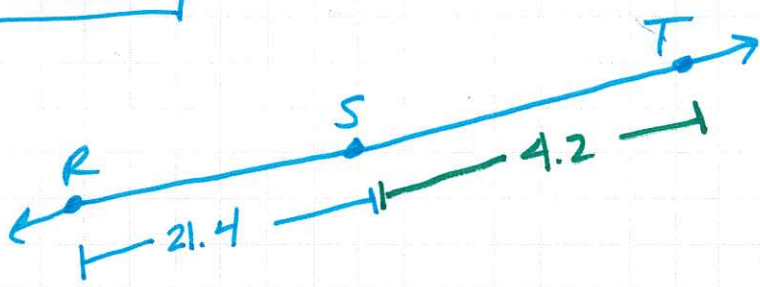
- 2) One vertex of a rectangle is $X(-3, 6)$. If the distance from X to Z is 15 what is a possible coordinate of Z?

Complete on Attached graph paper.

STAY READY.

HW52

①

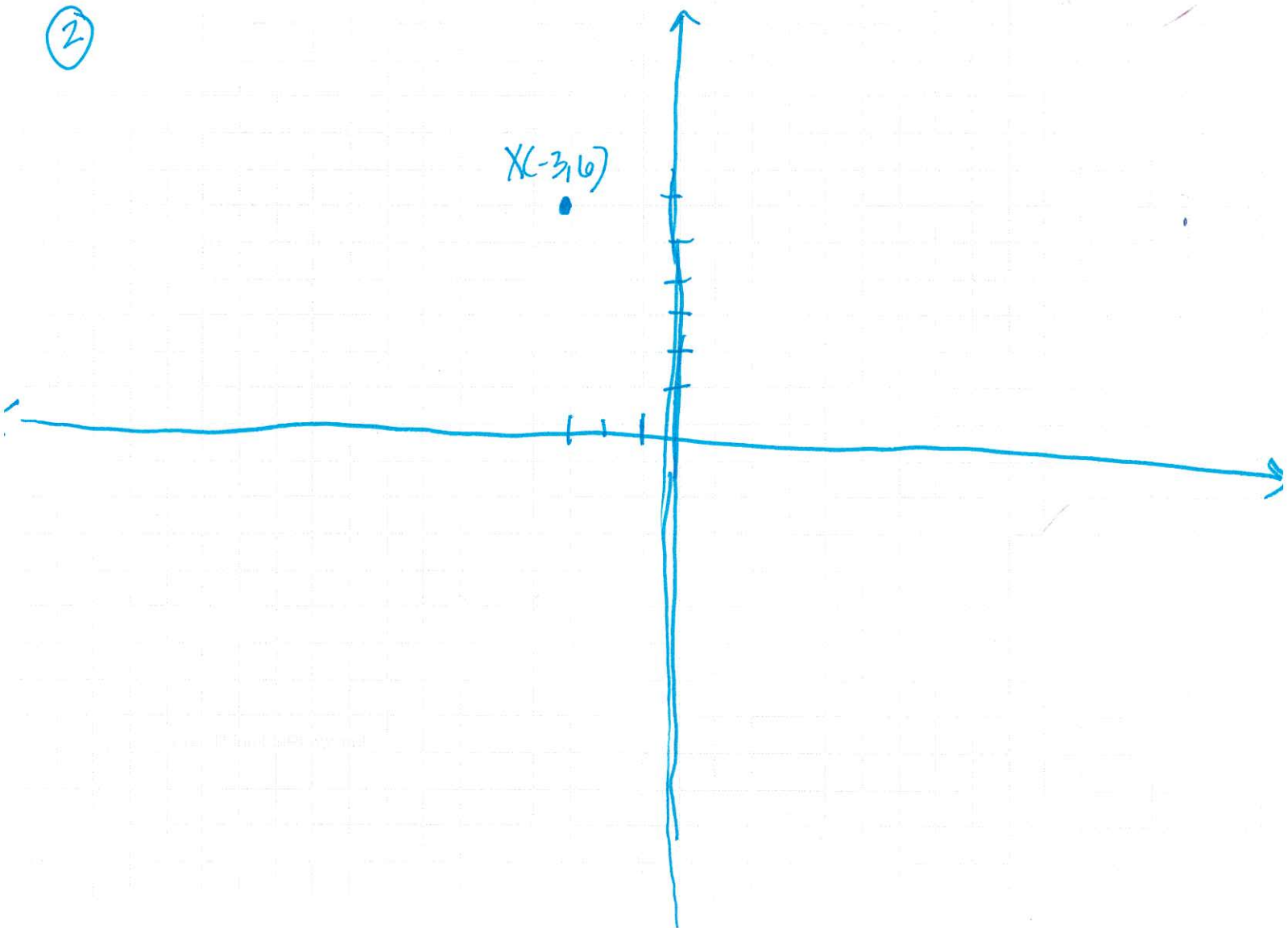


① Distance from R to S to T.

② Distance back to R.

③ Total distance :

②



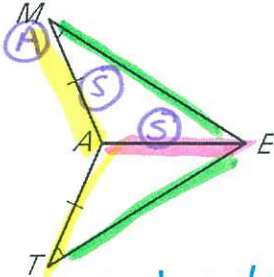
Name: _____ TP: _____

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*Postulates that DON'T prove $\triangle s \cong$: SSA, AAA

For #1- 6, determine if the two triangles are congruent. If so, write a congruency statement and identify what postulate is needed to prove the congruency. If not, write not congruent and explain why.

1) $\triangle MAE$, $\triangle TAE$

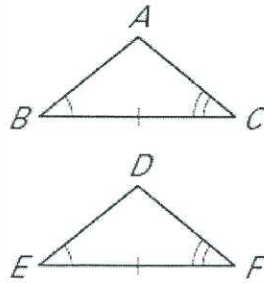


① Are all sides & angles corresponding?
Yes, the colors match

② Label "s" or "A" for \cong sides & angles on ONE \triangle .
See above

③ \cong or not \cong ? State which the postulate.
Not \cong . SSA is not a \cong postulate

2)

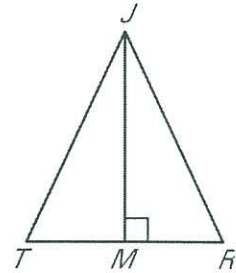


①

②

③

3) $\triangle JRM$, $\triangle JTM$

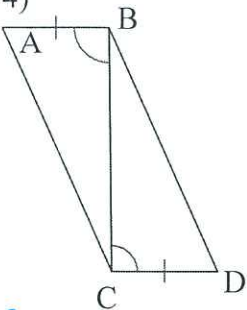


①

②

③

4)

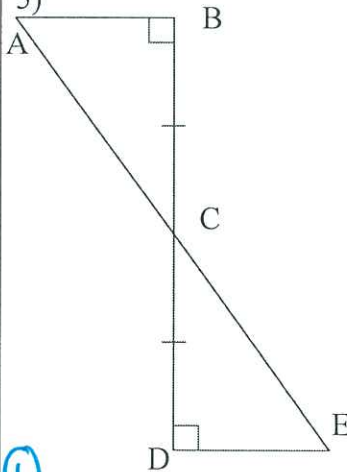


①

②

③

5)

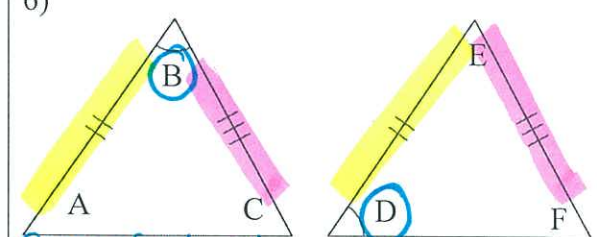


①

② What angle is \cong by vertical angles?

③

6)



① Careful here!

②

③

You should approach each problem as an exploration. Problem-solving requires persistence as much as it requires ingenuity. When you get stuck, or solve a problem incorrectly, back up and start over. Keep in mind that you're probably not the only one who is stuck, and that may even include your teacher. **If you have taken the time to think about a problem, you should bring to class a written record of your efforts, not just a blank space in your notebook.** The methods that you use to solve a problem, the corrections that you make in your approach, the means by which you test the validity of your solutions, and your ability to communicate ideas are just as important as getting the correct answer.

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- d. Even though I am stuck, I do know...and I think I should...because...
- e. I am stuck because I do not know what _____ means. I think it means...so I tried...
- f. I got this answer but I think it is wrong because...

Remember that you can always use old notes, a dictionary, math textbook, and/or look up topics online!

- 1) The width of a rectangle is three times the length. If the perimeter is 108, a) find the length and the width of the rectangle and b) find the area of the rectangle.

G: a)

b)

R: $W = () () \rightarrow$ use the yellow above to fill in the blanks.

$L = L$

$P = 108$

$P = \underline{\hspace{2cm}}$ (write out formula)

$A = \underline{\hspace{2cm}}$
(write out formula)

A/s:



$W = (X) \quad P = 2L + 2W$

$\underline{\hspace{2cm}} = 2L + 2()$

* SOLVE for L. Then plug in L to find W.
* Find the area.

I will create _____
to solve for the dimensions
using the _____ formula.
Then, I will find the
_____.

P: How can you PROVE
that your dimensions (L & W)
are correct! (Hint: Substitute!)

STAY READY.

*Use steps 1-3 on HWS3 to complete this HW assignment. COLOR CODE!!

Form A

HW#54: AAS, SSA, AAA, HL

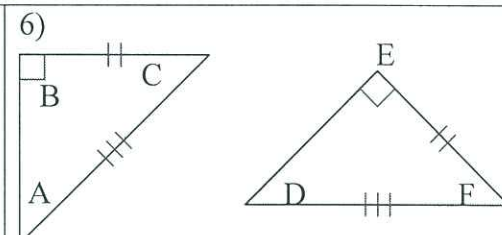
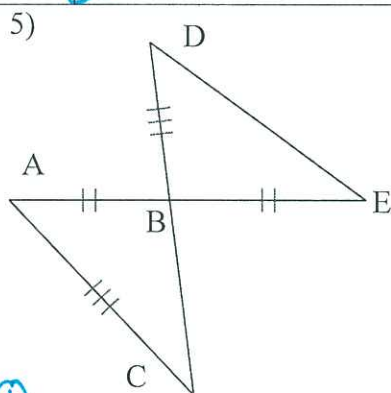
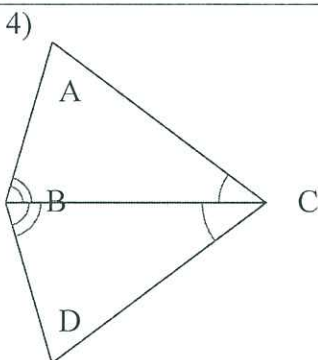
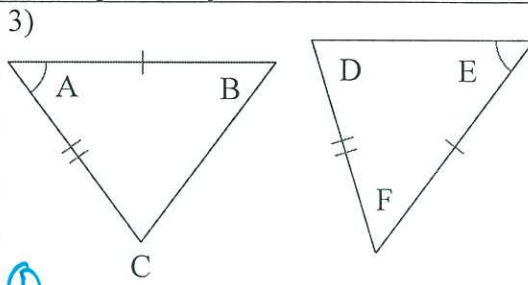
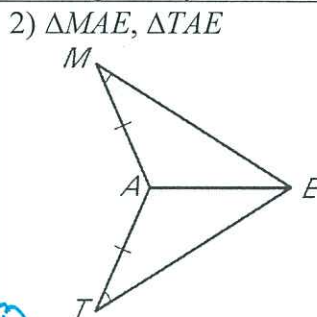
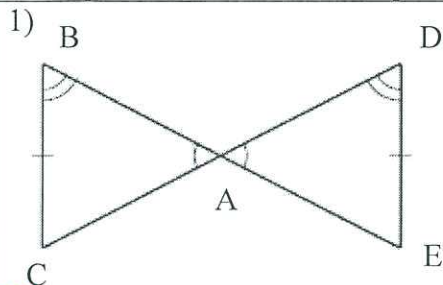
Geometry

Due Date: Thursday, December 19th, 2013

Name: _____ TP: _____

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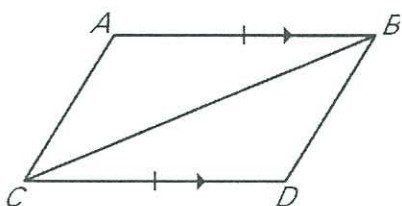
For #1- 6, determine if the two triangles are congruent. If so, write a congruency statement and identify what postulate is needed to prove the congruency. If not congruent, explain why.



9) Complete the proof.

GIVEN: $\overline{AB} \parallel \overline{CD}$, $\overline{AB} \cong \overline{CD}$

PROVE: $\triangle ABC \cong \triangle DCB$



- Statement
- ①
 - ②
 - ③ $\overline{BC} \cong \overline{BC}$
 - ④ $\angle ABC \cong \angle DCB$
 - ⑤

Reason

- ① Given
- ②
- ③ Property
- ④ Definition of angles
- ⑤

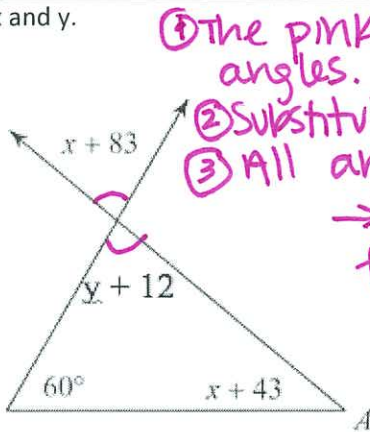
STAY READY.

Solve all of the problems in your graph paper notebook neatly labeled! If you are stuck and cannot answer a question, write at least three complete sentences about the problem and what you do know. Use at least one of the sentence starters below:

- g. Even though I am stuck, I do know...and I think I should...because...
- h. I am stuck because I do not know what _____ means. I think it means...so I tried...
- i. I got this answer but I think it is wrong because...

Remember that you can always use old notes, a dictionary, math textbook, and/or look up topics online!

1) Find x and y .



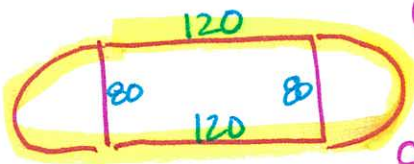
① The pink angles are \cong b/c they are _____ angles.

② Substitute $x + 83$ in for $y + 12$ (draw into picture).

③ All angles in a \triangle must sum to _____ $^\circ$.
 \rightarrow set up an equation equal to _____ $^\circ$. Solve for x .

④ Substitute x into " $x + 83$." Then, set equal to $y + 12$ because they are _____ angles.

2) A football stadium is being built and the builders need to determine the perimeter of the entire building. The stadium has a shape of a rectangle that measures 120 yards long by 80 yards wide. Semicircles extend from both 80-yard sides. Find the ~~circumference~~ perimeter of the stadium.



① What is the diameter of the semicircle?

② Find the circumference of the circle created by combining the semicircles.

③ Perimeter means to add up the OUTSIDE measures of an object. Look @ the yellow, & calculate the perimeter.